Gulf of Mexico Harmful Algal Bloom Bulletin

31 January 2005

National Ocean Service

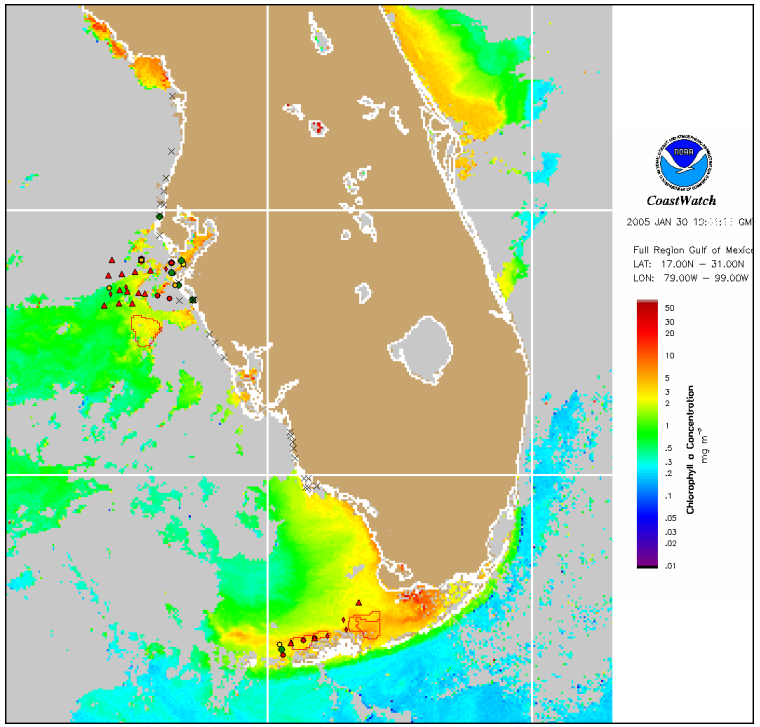
National Environmental Satellite, Data, and Information Service

Last bulletin: January 27, 2005

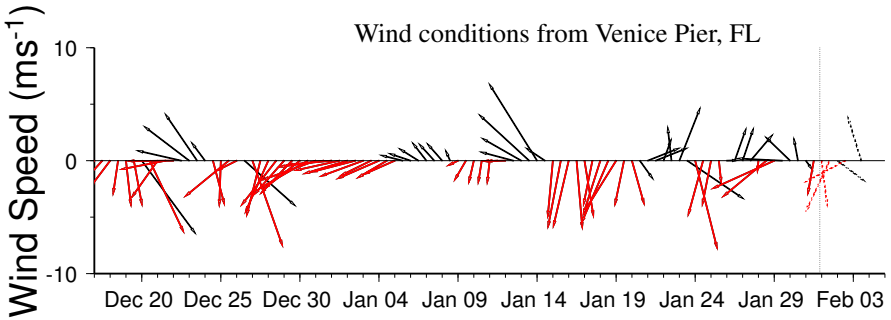
Conditions: A harmful algal bloom has been identified off the coast of Pinellas, Manatee, and Sarasota counties. Impacts at the beach are expected to be low today and tomorrow, patchy and moderate Wednesday, patchy and high on Thursday. Discolored water is likely along the coast. A harmful algal bloom has been identified southwest of Cape Sable and north of the lower Keys. No impacts are expected at Key West through Thursday. Discolored water is possible in the area.

Analysis: Much of the recent satellite imagery has been obscured by clouds. Jan. 27 image (Jan. 30 shown) indicates chlorophyll concentrations of 19 μg/L west (22 miles, 34 km) of Venice at 26°49'W, 82°35'N. At Siesta Key, Mote reported respiratory distress and a meduim concentration of K.brevis on January 30 and high concentrations of K. brevis 1.7 miles SW of Siesta Key on Jan. 27. Dead fish were also reported. January 24-27 samples at Tampa Bay entrance had very low concentrations of K. brevis (FWRI). Continued upwelling favorable winds will likely maintain bloom intensity. The bloom is expected to persist in it's current location. Variable winds and southward currents will likely cause southward and offshore expansion. Sampling is recommended offshore of Charlotte County. January 30 imagery indicates chlorophyll concentrations of 6 μg/L southwest (21 miles, 35 km) of Cape Sable at 24°49'N, 84°14'W, and chlorophyll concentrations of 5 μg/L north (15 miles, 25 km) of Key West at 24°47'N, 81°42'W. Several medium concentrations were found west of Big Pine Key to Long Key. One of these medium concentrations of K. brevis was near (3.5 km, 2 miles) Big Pine Key at 24°43'N, 81°22'W. Variable winds are expected to maintain bloom location.

Bronder, Fenstermacher

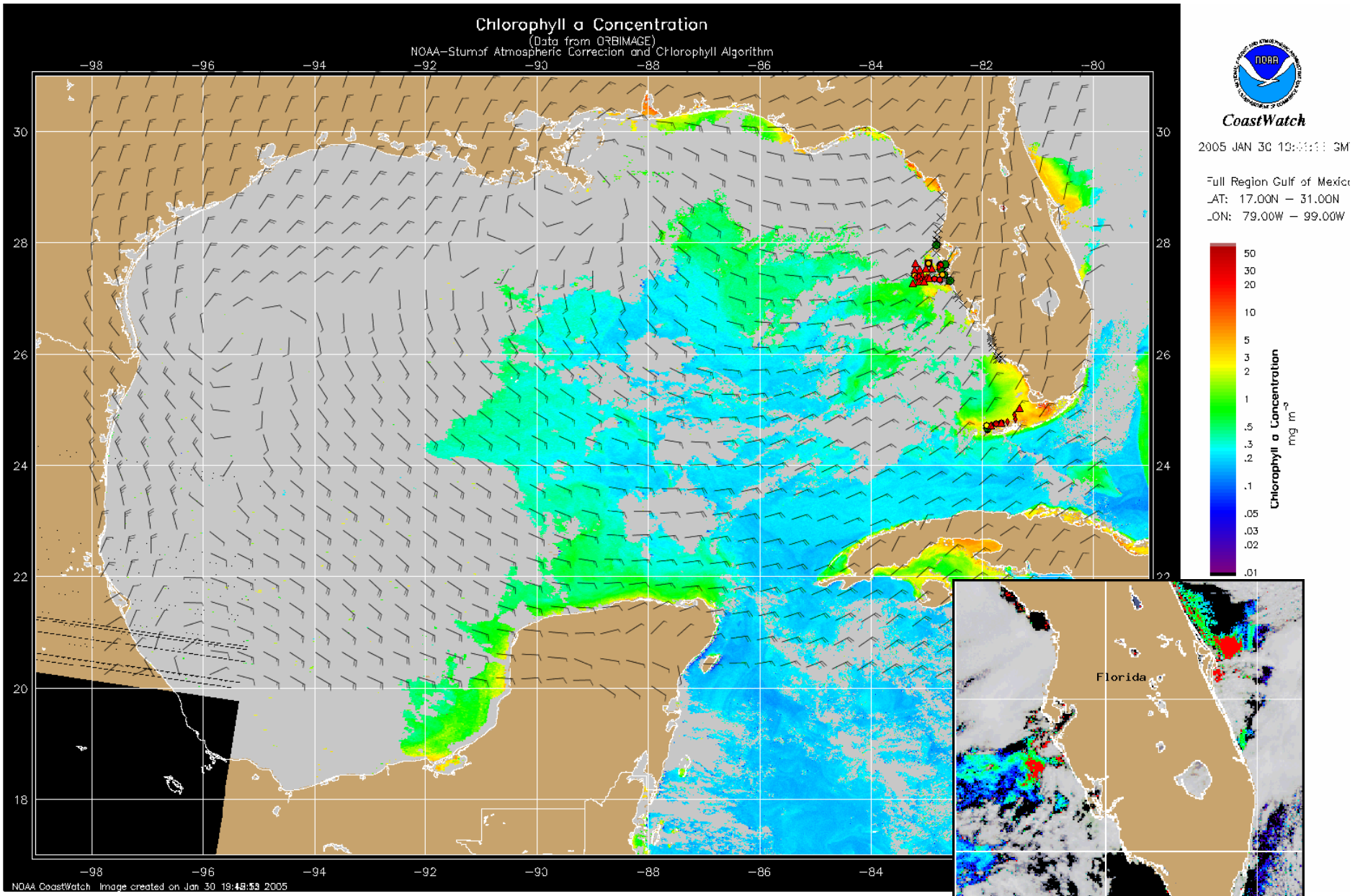


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 19, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Tampa Bay area: Winds have been weak and variable the past few days. 10-15 knot (5-8 m/s) winds will be northeast today through tomorrow, east tomorrow night, southeast Wednesday, and southwest Thursday. Keys: Winds have been moderate and variable the past few days. Winds will be north (10 knots, 5 m/s) today, northeast (15 knots) tonight through tomorrow, east (10 knots) Wednesday, clocking around to south (15 knots) Thursday.



Chlorophyll concentration from satellite and forecast winds for February 1, 2005 12Z with cell concentration sampling data from January 19, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Sand Key, FL